



<http://www.mn-arts.org/>

## February 2021 Edition

### February Meeting Minutes:

**Bob Liesenfeld, WB0POQ**, called the meeting to order on February 6, 2021 at 1:04 PM. 15 members were in attendance.

- Due to COVID-19 restrictions, the meeting was conducted via Zoom
- The December 2020 and January 2021 Minutes were approved.
- The Treasurer reported a balance of \$2417.54 in the club treasury.

### Old Business:

There was no old business.

### New Business:

**Paul Bushouse, N0TYE**, mentioned that in the past the club had made donations to the ARRL Foundation. It was generally agreed this should be continued. The matter was referred to the Board for action.

The subject of annual dues was brought up. Dues are payable in the month of March. \$20 is the suggested amount. Members under the age of 25 and new hams are exempt provided they submit

a member information form annually (helps keep the member information current). The form is on the MnARTS website at the bottom of the membership page. (Note: the Treasurer's address on the form on the web site is out of date.) In view of meeting currently occurring via Zoom, dues can be mailed to the Treasurer:

Paul Bushouse  
6050 Stinson Blvd  
Fridley MN 55432

**Daniel Kelley, KC0QHZ**, mentioned that the St. Paul Radio Club intends to resume their Circuit Builders group. More information may be available on their website.

### Show and Tell:

**Mike Burk, KD0JXE**, described an issue he was having getting calculated and real cable lengths for a given frequency to agree. He finally determined the velocity factor he was using was incorrect. He also admitted to frequently cutting off too much of whatever was being cut. (As did everyone else present!)

**Steve Ulrich, NW0C**, described a model ET4410 four wire LCR meter he

purchased from Banggood that seems to be giving reasonably accurate values.

**Ken Paulson, N0HRL**, described the new Raspberry Pi 400 keyboard which is a Pi 4, a keyboard and various ports built into a single unit. More information on the Pi 400 is available at <https://www.raspberrypi.org/blog/raspberry-pi-400-the-70-desktop-pc/>. He showed an example of a Ham Clock display program running on a Raspberry Pi. The program can be found at <http://www.clearskyinstitute.com/ham/HamClock/>.

**Bede Willenbring, WA0QNV**, showed an Iambic paddle he printed on a 3D printer.

**Bob Liesenfeld, WB0POQ**, showed an arduino based device he constructed from information he found on the web that connects to a key or a paddle and keyer and analyzes the characteristics of your "fist"; the length of dots and dashes, spacing, etc.

**Kevin Welna, W5LNA**, showed a dual shack clock, local time + UTC time,

that's synced to the internet time and can run on battery for several hours. More information on the clock is available at [w8bh.net/NTP\\_DualClock.pdf](w8bh.net/NTP_DualClock.pdf). The clock he displayed was housed in a case he printed. He offered to work with others who build the clock and would like to use the case he designed for it. He has also been working on a 3D printed paddle.

#### February Presentation:

**Eric Standjord, AD0MZ**, gave a presentation on the work he has been doing with a system to remotely adjust the length of a dipole antenna.

#### Next Meeting:

Russ will make the arrangements and send out a notice with details for the next meeting on March 6 (presumably via Zoom) at the appropriate time.

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#### Club Officers:

*President: Russ Ramirez/K0WFS  
Vice Pres: Bob Liesenfeld/WB0POQ  
Secretary: Bede Willenbring/WA0QNV  
Treasurer: Paul Bushouse/N0TYE  
At Large: Thomas Kent/WM0SS*

[russ.ramirez@gmail.com](mailto:russ.ramirez@gmail.com)  
[wb0poq@visi.com](mailto:wb0poq@visi.com)  
[b.willenbring@centurylink.net](mailto:b.willenbring@centurylink.net)  
[p-bushouse@bethel.edu](mailto:p-bushouse@bethel.edu)  
[tkent1952@gmail.com](mailto:tkent1952@gmail.com)